

# **ATTACHMENT 1**

**Correspondence Between RWQCB & Goodrich Corp.**



# California Regional Water Quality Control Board

## Santa Ana Region



Winston H. Hickox  
Secretary for  
Environmental  
Protection

Internet Address: <http://www.swrcb.ca.gov/rwqcb8>  
3737 Main Street, Suite 500, Riverside, California 92501-3348  
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Gray Davis  
Governor

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August 24, 2001

Mr. Terrence G. Linnert, Senior Vice President  
Goodrich Corporation  
Aerospace Headquarters  
Four Coliseum Center  
2730 West Tyvola Road  
Charlotte, NC 28217-4578

### PERCHLORATE IN SOIL AND GROUNDWATER AT FORMER B. F. GOODRICH RIALTO FACILITY, RIALTO, SAN BERNARDINO COUNTY

Dear Mr. Linnert:

Recent information obtained by Regional Board staff indicates that a former B. F. Goodrich solid rocket propellant facility that was in operation between 1957 and 1963 in the City of Rialto may have discharged wastes that impacted soil and groundwater. Analytical data that were obtained during groundwater sampling events performed by two local water supply agencies, West San Bernardino County Water District and City of Rialto, show that perchlorate in concentrations up to 322 micrograms per liter is present in groundwater immediately downgradient of the former site.

Based on our review of the activities conducted by the former tenants at this site, it is apparent that the B.F. Goodrich Rialto plant performed solid rocket propellant research and development for the United States Air Force, and had contracts with the Naval Ordnance Test Station in China Lake, California, which included work on the Sidewinder Missile.

Based on available records, it appears that past ammonium perchlorate (oxidizer) use or disposal practices by B. F. Goodrich have resulted in discharges that impacted groundwater at the site. Therefore, Goodrich Corporation is requested to conduct an on-site soil and groundwater investigation, and to submit a remedial action plan for the impacted groundwater.

By September 20, 2001, please confirm your intention to conduct the requested work. If you have any questions, or would like to schedule a meeting with Regional Board staff to discuss the issue, please contact Ann Sturdivant, Chief of our Spills, Leaks, Investigations and Cleanup Section at (909) 782-4904 or Kamron Saremi, Project Engineer, at (909) 782-4303.

Sincerely,

Robert L. Holub  
Supervising WRC Engineer

cc: Mr. Anthony Araiza - West San Bernardino County Water District  
Mr. Peter Fox - City of Rialto  
Mr. Kenneth Horn - Kwikset Corporation

KS:perchlorate gwimp

*California Environmental Protection Agency*



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# GOODRICH

Goodrich Corporation  
Four Coliseum Centre  
2730 West Tyvola Road  
Charlotte, NC 28217-4578  
Tel: 704 423 7000  
Fax: 704 423 7002  
www.goodrich.com

September 20, 2001

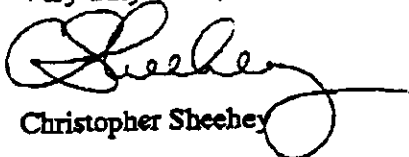
Mr. Kamron Saremi  
Project Engineer  
Santa Ana Region  
California Regional Water Quality Control Board  
3737 Main Street, Suite 500  
Riverside, California 92501-3348

Re: Rialto Perchlorate Remediation Project

Dear Kamron:

As we discussed today, we have thus far found no nexus between Goodrich and the site described in the letter from Robert Holub of your organization to Terry Linnert of Goodrich dated August 24, 2001. We look forward to receiving the 2-page summary you described. Once we have had an opportunity to review this summary, we will be in a better position to respond. Therefore, we respectfully request an additional 30 days to provide our response to Mr. Holub's letter.

Very truly yours,



Christopher Sheehy

cc: Bruce Arnig

Post-It® Fax Note	7671	Date	# of pages ▶
To	Kamron Saremi	From	Chris Sheehy
Co./Dept.		Co.	
Phone #		Phone #	
Fax #	909-782-6288	Fax #	



# California Regional Water Quality Control Board

## Santa Ana Region



inston H. Hickox  
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September 25, 2001

Mr. Christopher Sheehey  
Attorney At Law  
Goodrich Corporation  
Four Coliseum Center  
2730 West Tyvola Road  
Charlotte, NC 28217-4578

### FORMER B.F. GOODRICH RIALTO FACILITY, RIALTO, CALIFORNIA

Dear Mr. Sheehey:

This is in response to the letter we received from you, dated September 20, 2001. In this letter, you requested additional time to review the 2-page summary from the Rialto Historical Society and other relevant information in order to submit a response to our August 24, 2001 letter regarding the presence of perchlorate in soil and groundwater in the vicinity of the former B.F. Goodrich site in the City of Rialto.

Your request for an extension to October 22, 2001 is granted.

If you have any questions, please contact Ann Sturdivant, Chief of our Spills, Leaks, Investigations and Cleanup Section at (909) 782-4904, or Kamron Saremi, Project Engineer, at (909) 782-4303.

Sincerely,

Robert L. Holub  
Supervising WRC Engineer

KS:Goodrichextens.

*California Environmental Protection Agency*



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October 18, 2001

*Via Fax and U.S. Mail*

Mr. Kamron Saremi  
California Regional Water Quality Control Board  
3737 Main Street, Suite 500  
Riverside, California 92501-3348

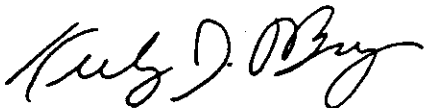
RE: Rialto Perchlorate Remediation Project

Dear Kamron:

As discussed today, I write to confirm that the California Regional Water Quality Control Board approves Goodrich Corporation's ("Goodrich") request to extend its deadline to respond to Robert Holub's August 24, 2001 letter to Terry Linnert of Goodrich an additional forty-five days from the current October 22, 2001 deadline. Goodrich is in the process of investigating the Rialto Historical Society information.

Please let me know if you have any questions or concerns.

Sincerely,



Keely J. O'Bryan

cc: Christopher Sheehey, Esq.  
Mr. Bruce Amig  
Michael L. Hardy, Esq.

SANTA ANA REGION	
REC'D	DATE
AES	OCT 22 2001
KS	10/22



SLH 2/6  
AES 2/6

KS 2/6

January 28, 2002

*Via Fax and U.S. Mail*

Mr. Robert Holub  
California Regional Water Quality Control Board  
3737 Main Street, Suite 500  
Riverside, California

RE: Rialto Perchlorate Investigation

Dear Mr. Holub:

This letter supplements my December 12, 2001 letter to you and provides an update on Goodrich Corporation's ("Goodrich") investigations into its manufacturing activities in Rialto, California.

Goodrich has conducted a good-faith and extensive search for any and all Rialto, California records, interviewed former employees, reviewed technical information from the Regional Water Quality Control Board, researched former and subsequent property ownership and contacted the Rialto Historical Society. To date, Goodrich has learned that on July 19, 1957, it purchased approximately 160 acres in Rialto, California from Kwikset Locks, Inc. (on July 1, 1957, West Coast Loading Corporation merged into Kwikset Locks, Inc.) (k.n.a. Kwikset Corporation). Goodrich conducted solid rocket fuel manufacturing processes on this property. On June 3, 1966, Goodrich sold the facility to Clipper Pyrotechnic Corporation, a fireworks manufacturing company. It is Goodrich's understanding that a fireworks company, Pyro Spectaculars, Inc. is currently operating on the property.

Further, as described in the attached newspaper articles, an explosion occurred in February, 1968, after Goodrich left the site. The explosion was triggered in a powder press room and caused serious damage to persons and property at the facility.

Goodrich has not identified any evidence of releases of perchlorate during its ownership. Goodrich requested evidence of a release of perchlorate during its ownership from the Water Quality Control Board. Although the Water Quality Control Board forwarded the July, 2001 Mid Valley Sanitary Landfill Report, nothing in that Report identifies Goodrich as the source of the perchlorate contamination. Goodrich will continue its internal investigation. But without proof that Goodrich released perchlorate during its ownership of the property, Goodrich at this time cannot commit to perform the requested soil and groundwater investigation at the Site.

Goodrich is willing to revisit this position should additional information become available. Further, Goodrich representatives travel to the area frequently and can be available to meet with the Water Quality Control Board to discuss this matter.

Keely.OBryan@ThompsonHine.com Phone 216.566.5686 Fax 216.566.5800

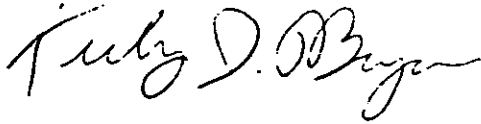
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January 28, 2002

Page 2

If you have any questions, please do not hesitate to contact me.

Sincerely,



Keely J. O'Bryan

cc: Christopher Sheehey, Esq.  
Mr. Bruce Amig  
Michael L. Hardy, Esq.  
Heidi B. Goldstein, Esq.





# California Regional Water Quality Control Board

## Santa Ana Region



Winston H. Hickox  
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February 6, 2002

Mr. Terrence G. Linnert, Senior Vice President  
Goodrich Corporation  
Aerospace Headquarters  
Four Coliseum Center  
2730 West Tyvola Road  
Charlotte, NC 28217-4578

### PERCHLORATE IN SOIL AND GROUNDWATER, FORMER B. F. GOODRICH FACILITY, NORTH LOCUST AVENUE, RIALTO, SAN BERNARDINO COUNTY

Dear Mr. Linnert:

We have reviewed the letter dated January 28, 2002, which was submitted on your behalf by your attorney, Keely O'Bryan. Thank you for taking the time to research the history of the activities at this former B.F. Goodrich site. The letter states that you have been unable to document any historical spills at this site, and therefore, cannot voluntarily comply with our request to initiate a soil and groundwater investigation. However, based on our conversation with Mr. Bruce Amig of your staff on February 4, 2002, it appears that Goodrich Corporation is now willing to participate in the requested investigation and cleanup of the site.

City of Rialto records indicate that B.F. Goodrich performed solid propellant research and development for the United States Air Force at this site, and had contracts with the Naval Ordnance Test Station in China Lake, California, which included work on the Sidewinder Missile. Records also indicate that other occupants used the facility for solid propellant mixing and testing, both before and after Goodrich's occupancy of the site. Analytical results of groundwater samples taken from municipal drinking water wells indicate that perchlorate is present in groundwater at concentrations up to 322 parts per billion immediately downgradient of this site.

Since perchlorate is present in groundwater immediately downgradient of this site, and since ammonium perchlorate is used as an oxidizer in solid propellant, it appears that past use or disposal of ammonium perchlorate by B.F. Goodrich has contributed to discharges that have impacted groundwater. Therefore, Board staff is considering

*California Environmental Protection Agency*



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February 6, 2002

preparation of a Cleanup and Abatement Order, pursuant to Section 13304 of the California Water Code, which would require that B.F. Goodrich and other former occupants of the Rialto site conduct a soil and groundwater investigation, and submit and implement a remedial action plan for the impacted groundwater. If an Order is prepared, we will provide a draft copy for your review.

Should you have any questions, or wish to schedule a meeting to discuss this issue, please call Ann Sturdivant, Chief of our SLIC/DoD/AGT Section, at (909) 782-4904, or Kamron Saremi, Project Engineer, at (909) 782-4303.

Sincerely,



Gerard J. Thibeault  
Executive Officer

cc: Jorge Leon, SWRCB-OCC  
Christopher Sheehey, B.F. Goodrich Corporation  
Anthony Araiza, West San Bernardino County Water District  
Peter Fox, City of Rialto  
Kenneth Hom, Kwikset Corporation  
Gary Brown, Pyro Spectaculars, Inc.  
John Boruchin, Boruchin Enterprises, Fontana  
Keely J. O'Bryan, Thompson Hine LLP, Cleveland, OH

C:/AES/BFGoodrich



February 26, 2002

*Via Fax and U.S. Mail*

Mr. Kamron Saremi  
California Regional Water Quality Control Board  
3737 Main Street, Suite 500  
Riverside, California

Dear Kamron:

Thank you for meeting with Mr. Bruce Amig of Goodrich Corporation ("Goodrich") on Wednesday, February 20, 2002. We appreciate the time you took to explain your understanding of the issue at hand. While Goodrich still has not identified any releases of perchlorate during its limited operations that took place between 1957 and approximately 1964, we understand that the Regional Water Quality Control Board (the "Board") believes perchlorate is associated with past use. To address the Board's concerns, Goodrich will be retaining a consultant to assist with Goodrich's analysis of the perchlorate plume in Rialto. Please provide us with any additional documentation in your possession that may better help us gain an understanding of site conditions.

Moreover, Goodrich is writing this letter to request information from the Board regarding its intentions to include several other potentially responsible parties in a potential investigation and cleanup order for the perchlorate plume. Goodrich has identified numerous former property owners that likely utilized perchlorate in their manufacturing processes. Additionally, it is likely that the current property owner, Pyro Spectaculars, Inc., also uses perchlorate at its fireworks manufacturing facility. It is Goodrich's position that all responsible parties should be named in the Board's order.

Specifically, Goodrich has identified the following potentially responsible parties:

1. Kwikset Corporation (a division of Black & Decker Corporation):

Kwikset operated the West Coast Loading Company, a manufacturer of pistols and parachute flares, from 1950-1957, prior to Goodrich's operations on the property.

2. Hadco Corporation:

Hadco retained a Right of Way Agreement onto Kwikset's and Goodrich's property beginning in 1952. The Right of Way Agreement extended to Clipper Pyrotechnic Corporation's ("Clipper") ownership of the property beginning in 1966.

Keely.OBryan@ThompsonHine.com Phone 216.566.5686 Fax 216.566.5800

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February 26, 2002

Page 2

3. Ordnance Associates, Inc.:

Goodrich leased two bunkers located on its facility to Ordnance Associates for military storage beginning on November 4, 1964. The bunkers were built during World War II to store military explosives. Clipper's purchase of Goodrich's property in 1966 included Goodrich's lease with Ordnance Associates. Research indicates that Ordnance Associates was a pyrotechnics contractor in 1964.

4. Clipper Pyrotechnic Corporation/Red Devil Fireworks Company:

On June 3, 1966, Goodrich sold the property and facility to Clipper Pyrotechnic Corporation. Clipper operated under the trade names of Red Devil and Red Devil Fireworks Company. Clipper Pyrotechnic Corporation is believed to have merged into Pyrotronics Corporation, located at 2349 West LaPalma, Anaheim, CA 92801. Red Devil Fireworks is now believed to be located at 8450 Rovana Circle, Sacramento, CA, 95828-1093, (916) 387-2335.

5. United Fireworks Company:

United Fireworks Company is believed to be a subsequent owner of the former Goodrich Rialto facility. As detailed in a newspaper article that Goodrich included in its January 28, 2002 letter to the Board, on February 16, 1968, an explosion occurred at United Fireworks' manufacturing facility located at 5300 North Locust Avenue, Rialto, California.

6. Pyro Spectaculars, Inc.:

Pyro Spectaculars, a fireworks manufacturer, is believed to be the current property owner. Pyro Spectaculars previously operated as Celebrity Fireworks, Inc. and Spectacular Productions, Inc. on the same property (3196 North Locust Avenue, Rialto, CA 92376).

7. Fireworks Company next door to Goodrich's former facility:

Information from Bette Hughbanks of the Rialto Historical Society suggested that a fireworks manufacturing facility was located next to Goodrich's former facility and may still be operating. Goodrich is attempting to locate additional information on this facility.

8. County of San Bernardino:

The County of San Bernardino is the current owner/operator of the Mid-Valley Sanitary Landfill.

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February 26, 2002

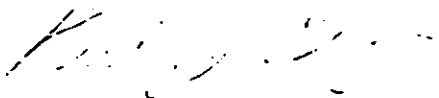
Page 3

9. All parties that disposed of perchlorate waste in the Mid-Valley Sanitary Landfill.
10. The "Robertson's Plant" identified in the Mid Valley Sanitary Landfill report as a possible source of the perchlorate contamination.

Goodrich is attempting to locate additional information on the U.S. Government's use of the property as an ammunition storage area during World War II, as well as the identity of the fireworks manufacturing facility adjacent to the former Goodrich facility. We will provide you with any additional information we discover as soon as it is available. In the meantime, we are happy to meet with you again to discuss the best course of action to include these potentially responsible parties in the Board's order.

Please let me know if you have any questions.

Sincerely,



Keely J. O'Bryan

cc: Chris Sheehey, Esq., Goodrich Corporation  
Mr. Bruce Amig, Goodrich Corporation  
Michael L. Hardy, Esq.  
Heidi B. Goldstein, Esq.

March 26, 2002

SANTA ANA REGION	
REC'D	DATE
	MAR 29 2002
AES	
KS	4/4

*Via Fax and U.S. Mail*

Mr. Kamron Saremi  
California Regional Water Quality Control Board  
3737 Main Street, Suite 500  
Riverside, California 92501

Dear Kamron:

I write to supplement my February 26, 2002 letter to you regarding Goodrich Corporation's ("Goodrich") investigations of its former manufacturing processes in Rialto, California.

Goodrich has identified additional potentially responsible parties since my February 26<sup>th</sup> letter to you. Records from the California Environmental Protection Agency ("Cal/EPA"), Department of Toxic Substances Control ("DTSC") indicate that Broco Environmental, Incorporated ("BEI") operated a 23-acre facility located at 2610 North Alder Avenue, Rialto, California, 92377 (facility office located at 28244 North Locust Avenue), from approximately 1966 to 1999. The facility was located near the southwest corner of the Mid-Valley Sanitary Landfill. From these documents, it appears that BEI received and treated explosives and reactive wastes on-site with open burning/open detonation from approximately 1966 until at least 1994.

During its operations, the DTSC issued the BEI facility numerous violations, and on January 23, 1992, issued an Imminent and Substantial Endangerment Order due to BEI's repeated violations and a January 14, 1997 explosion that seriously injured two employees. BEI was a subsidiary of Environmental Enterprises, Inc. ("EEI") currently located at 10163 Cincinnati-Dayton Road, Cincinnati, Ohio, 45241, (513) 772-2818. In April, 1999, BEI sold its facility to Denova Environmental, Inc. In August, 2001, Denova's business address changed from 2824 N. Locust Avenue and is currently located at 10575 Banana Road, Fontana, California, 92337.

Keely.OBryan@ThompsonHine.com Phone 216.566.5686 Fax 216.566.5800

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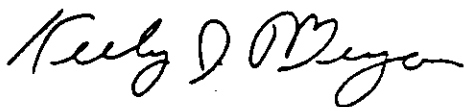
March 26, 2002

Page 2

As stated in my February 26<sup>th</sup> letter to you, it is Goodrich's position that all potentially responsible parties, including EEI and BEI's successor Denova Environmental, Inc., should be named in the Board's Order for the investigation of the Rialto perchlorate plume.

Please do not hesitate to contact me if you have any questions.

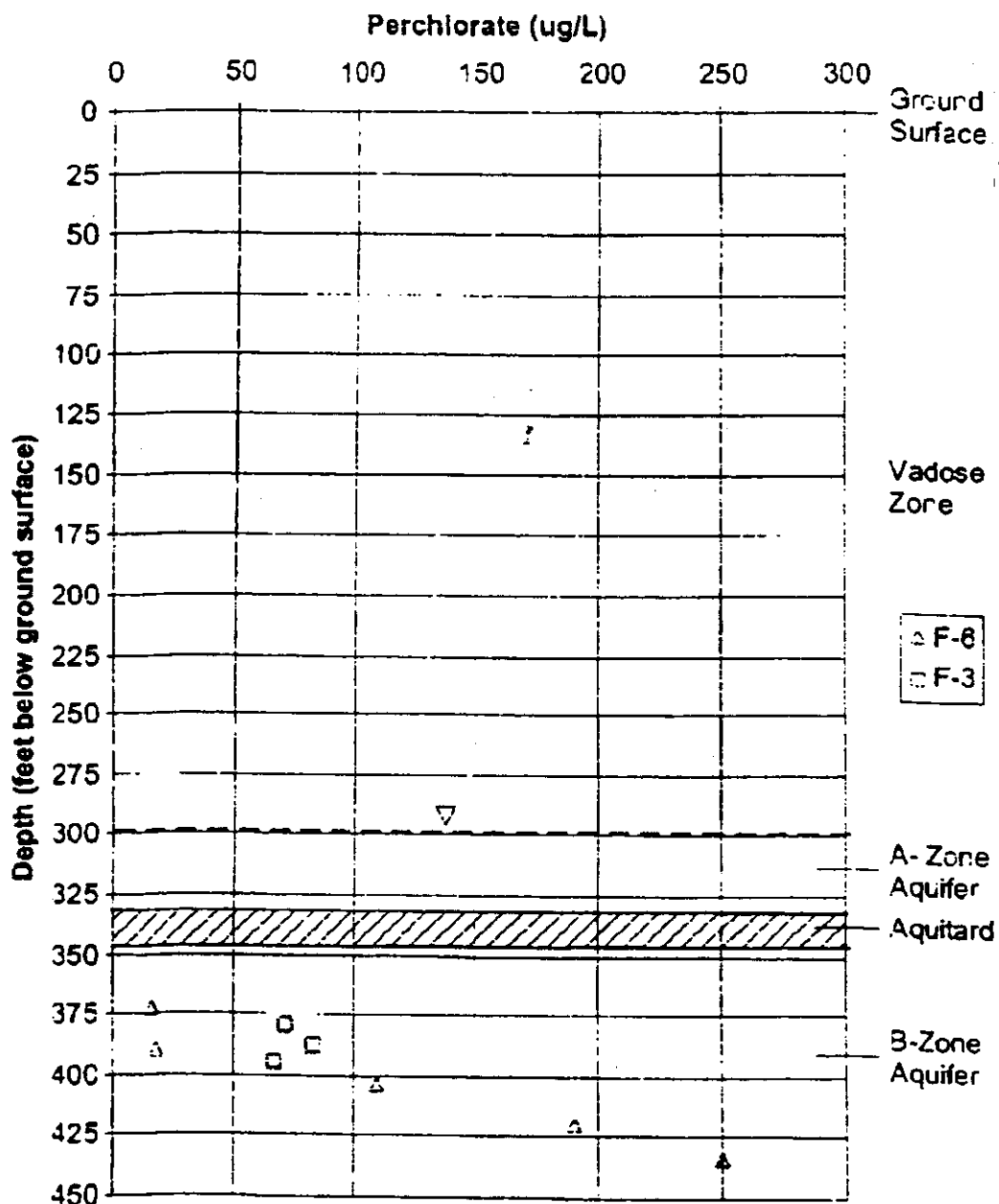
Sincerely,



Keely J. O'Bryan

cc: Mr. Brian Durdle, Goodrich Corporation  
Mr. Bruce Amig, Goodrich Corporation  
Michael L. Hardy, Esq.  
Heidi B. Goldstein, Esq.

# Perchlorate Concentration of F-3 & F-6 vs Depth



DATE OF SAMPLING: MAY 2001  
 SOURCE: PRELIMINARY FIELD AND LABORATORY INVESTIGATION OF  
 PERCHLORATE DETECTION IN GROUNDWATER  
 MID-VALLEY LANDFILL, RIALTO

figure 2



PERCHLORATE CONCENTRATION OF F-3 AND F-6 WITH DEPTH  
 Rialto, California





SOURCE: USGS MAPS, DEVEREUX, CALIFORNIA  
FONTANA, CALIFORNIA  
PHASE B ENVIRONMENTAL IMPACT STUDY  
AND VALLEY, SAN JOSE, CALIFORNIA, CA  
TRINITY, OF SAN BENITO, CALIFORNIA



**BOULEVARD DE LA LIBERTÉ**



April 2, 2002

2

Reference No. 30157

Also highlighted in Figure 1, in part as a frame of reference, are the two portions of the Mid Valley Landfill, the so-called north mound and the south mound.

Goodrich purchased the properties in July 1957 and sold the properties in April 1966. Their operating period on the site was of shorter duration, ending in early 1964.

**Fact 2:** There are three aquifers in this area of Rialto. These aquifers are:

- A zone aquifer - the unconfined aquifer with a lower elevation of approximately 330 feet below ground surface (bgs) as defined by an aquitard;
- B zone aquifer - the middle aquifer as defined from approximately 340 feet to 485 feet bgs;
- C zone aquifer - the deep aquifer as defined from approximately 490 feet to the USGS lower unit at approximately 650 feet bgs.

**Fact 3:** There have been significant perchlorate measurements reported in the B zone aquifer reported at monitoring wells F-3 and F-6 beginning in the late 1990s. The locations of these monitoring points are indicated on Figure 1, along the southern boundary of the northern portion of the Mid-Valley Landfill. The perchlorate concentrations at various depths (as reported by Geologic Associates) are depicted in Figure 2. These results demonstrate increasing concentrations with depth at both monitoring wells, F-3 and F-6, to the maximum depths of these monitoring wells, at both locations, along the southern boundary of the north portion of the Mid Valley Landfill.

**Fact 4:** The groundwater equipotential contours for both the A zone aquifer and the B zone aquifer are as depicted in Figure 3. The information plotted in Figure 3 was obtained directly from Figure 10 of Geologic Associates report, with the exception of the addition of monitoring well locations of F-3 and F-6 which we have added to Figure 3 for purposes of clarification.

The direction of groundwater movement in the vicinity of F-3 and F-6, as directly evident from Figure 3, is strongly to the southeast and are not downgradient of the former Goodrich Parcel No. 2.

**Fact 5:** The landfill filling sequence at the Mid Valley Landfill was commenced in 1958 and was initiated in the rectangular parcel in the southwest, the south mound. The northern portion of the Landfill property, the north mound, was purchased in 1973 and landfilling operations moved to the north mound in 1978. This is fourteen years after Goodrich sold the properties illustrated on Figure 1.



April 2, 2002

3

Reference No. 30167

**Conclusion 1: The former Goodrich Parcel No. 2 Could Not Have Caused the Perchlorate Concentrations Recorded at F-3 and F-6.**

The major activities for the former Goodrich Plant were on Parcel No. 2 and, given the groundwater flow directions embodied in Figure 3, land use activities on Parcel No. 2 could not have caused the perchlorate concentrations reported for F-3 and F-6 given the direction of the groundwater flow vectors. The perchlorate concentrations were monitored at significant depth in the B zone aquifer, and are cross-gradient to the flow direction of the groundwater from Parcel No. 2 of the former Goodrich property.

**Conclusion 2: The former Goodrich Parcel No. 1 Could Not Have Caused the Perchlorate Concentrations at F-3 and F-6.**

Only storage activities were carried out by the former Goodrich Plant on Parcel No. 1. Further, given the groundwater flow directions in Figure 3, land use activities on Parcel No. 1 could not have caused the perchlorate concentrations reported for F-3 and F-6. The perchlorate concentrations were monitored at significant depth in the B zone aquifer and are cross-gradient to the flow direction of the groundwater from Parcel No. 1 of the former Goodrich property.

**Conclusion 3: Former Goodrich wastes (if any) in the Mid Valley Landfill, could not have caused the perchlorate concentrations at F-3 and F-6.**

If the Mid Valley Landfill is the source of the perchlorate concentrations measured at F-3 and F-6, the groundwater flow directions indicate the portion of the landfill causing the impact could only be the northern mound of the Landfill. The northern mound of the Landfill only started its operational period 14 years after the termination of the operating period of Goodrich at their Rialto Plant. Hence, residuals from the Goodrich activities (if any) as placed in the Landfill could not have caused the perchlorate concentrations reported for F-3 and F-6. Note also that Goodrich has not identified any information to suggest that it sent perchlorate to any portion of the Mid Valley Landfill.

**Conclusion 4: Sources other than the former Goodrich operations must be responsible for the perchlorate concentrations reported at F-3 and F-6.**

Sources operating on parcels other than the former Goodrich property in Rialto must be responsible for the perchlorate concentrations reported for F-3 and F-6. Possibilities include, but are not limited to the Mid-Valley Landfill, Hadco Corporation, Clipper Pyrotechnic Corporation/Red Devil Fireworks Company, United Fireworks Company, Pyro Spectaculars Inc., Broco Environmental Inc., Environmental Enterprises Inc (EEI of Ohio), Lockheed (from their Grand Central Rocket Company), Alman's Truck Repair, Rib Roof, and Trojan Fireworks Company. It is also possible that the University of Redlands may have some responsibility.



**CONESTOGA-ROVERS  
& ASSOCIATES**

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Telephone: (519) 884-0510 Fax: (519) 725-1394  
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## FACSIMILE

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DATE: April 2, 2002

REFERENCE NO.: 50167

TO: Kamron Saremi, P.E.

FACSIMILE NO.: 909-781-5288

FROM: Ed McBean, Ph.D., P.Eng

Total Pages (Including Cover Page) 8

☐ Facsimile is Receiver's Original

Original Will Follow By:

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## MESSAGE

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KS

4/2/02

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April 2, 2002

Ref: 30167

Kamron Saremi, P.E.  
Associate Water Resources Control Engineer  
California Regional Quality Control Board  
Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, CA 92501-3339

Dear Mr. Saremi:

Re: Perchlorate in Groundwater,  
Rialto, San Bernardino County

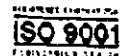
On behalf of the Goodrich Corporation ("Goodrich") (f.k.a. the B. F. Goodrich Company), I have been following up on the perchlorate matter. In part my findings have been guided by insights obtained from our discussions and information from your files, conversations with former employees at the Goodrich Rialto Plant, and various reports. I would like to take this opportunity to share with you some of my insights and findings to date.

**Summary Conclusion**

The perchlorate concentrations as reported at F-3 and F-6 immediately downgradient from the Mid-Valley Landfill were not caused by Goodrich's former Rialto Plant because the wells are located cross-gradient from the former operations as explained in the underlying discussion. In fact, F-3 and F-6 are downgradient of other historical facilities that were neither owned nor operated by Goodrich.

**Background Facts:**

**Fact 1:** During the time period of ownership of land by Goodrich in the County of San Bernardino, State of California, there were two parcels of land involved. Parcel No. 1 was a very small piece of property approximately 1.2 acres in size that was used for storage, and Parcel No. 2 was a one-quarter of Fractional Section 21, and was the main production facility. Both of these parcels of land are highlighted in Figure 1 attached. Please note that several other companies operated around and about the 1.2 acres of the former Goodrich Parcel No. 1.





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April 2, 2002

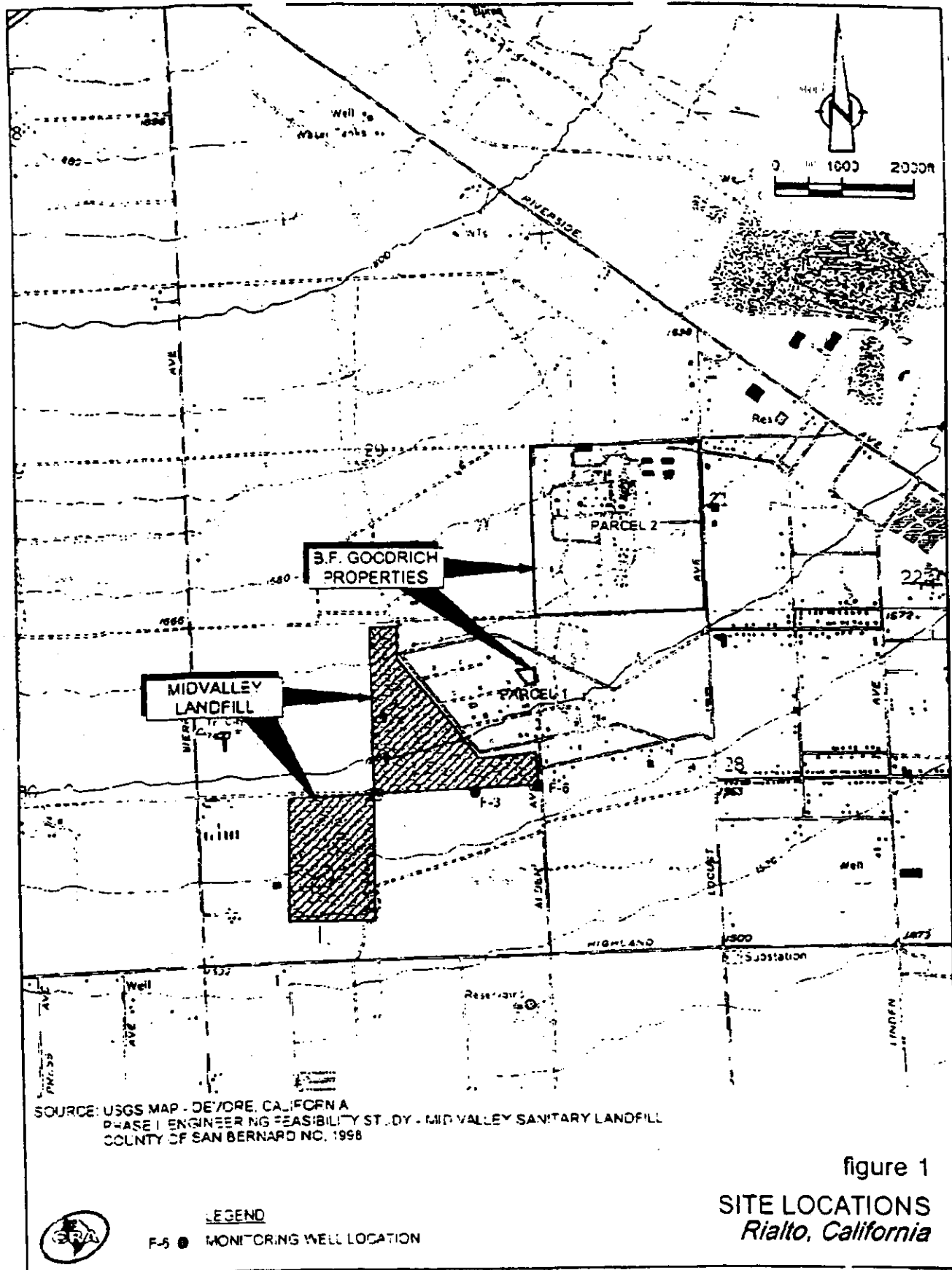
4

Reference No. 30167

Yours truly  
CONESTOGA-ROVERS & ASSOCIATES

*Edward A. McBean*

Edward A. McBean, Ph.D., P.E.  
Vice-President:





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## FACSIMILE

DATE: May 28, 2002

TO: Kamron Saremi ✓

FROM: Ed McBean

REFERENCE NO.: 00167

FACSIMILE NO.: 909-781-6288

Total Pages (Including Cover Page) \_\_\_\_\_

☐ Facsimile is Receiver's Original

Original Will Follow By:

- ☐ Mail  
☐ Overnight Courier  
☐ E-mail

## MESSAGE

Kamron:

As per our discussion, I have depicted on the attached figure, the approximate locations for the two nested well monitoring locations. Please advise if you have alternative locations that you believe would be more appropriate.

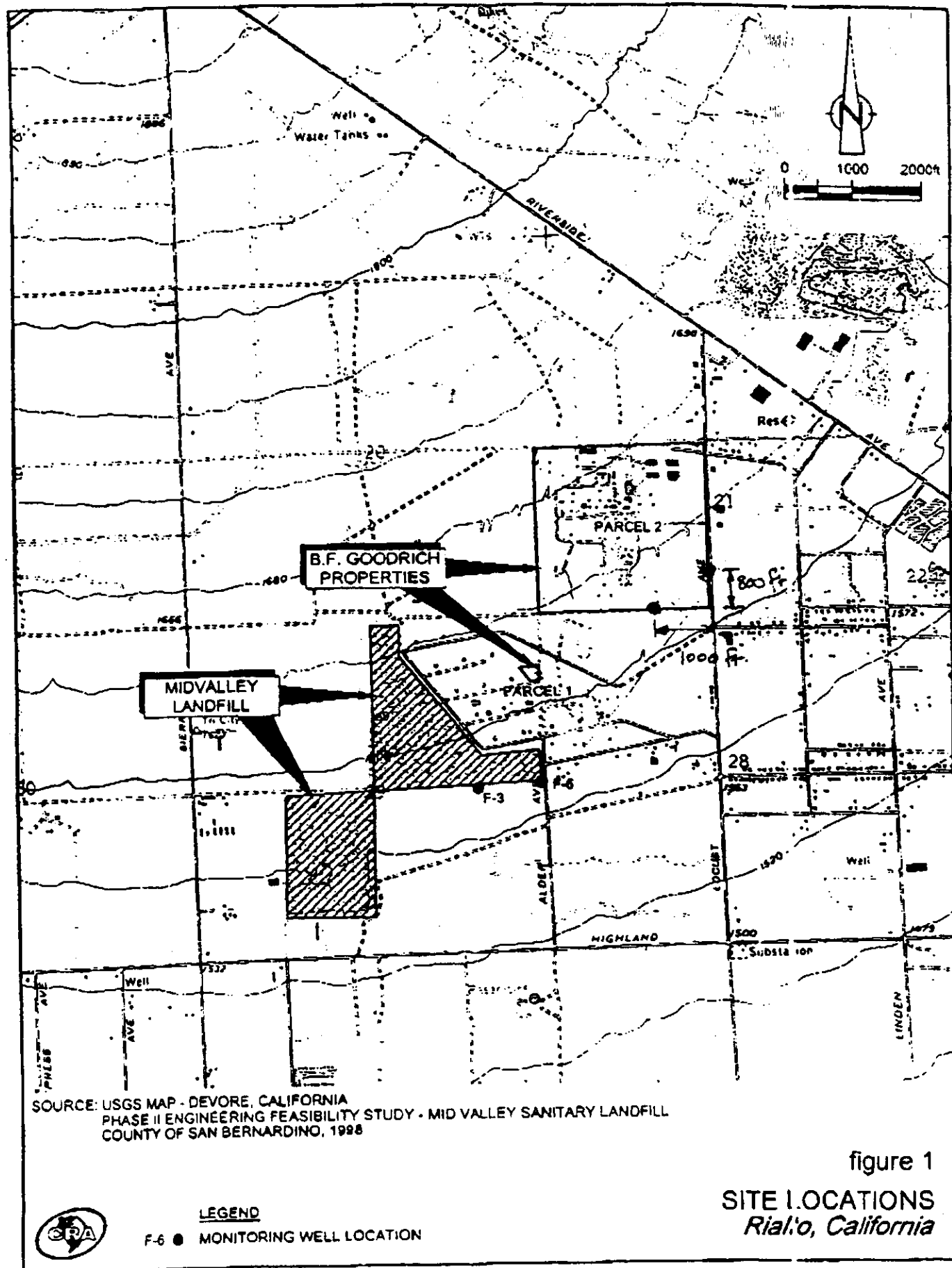
Note that I am working this week out of a different office and hence if you wish to contact me over the next few days, my telephone number is 604-214-0510 until the 1st of June.

Ed

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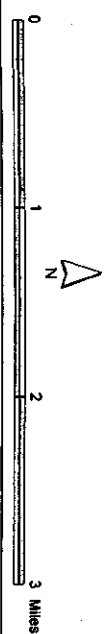
REGISTERED COMPANY INC  
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REGISTERED DESIGN



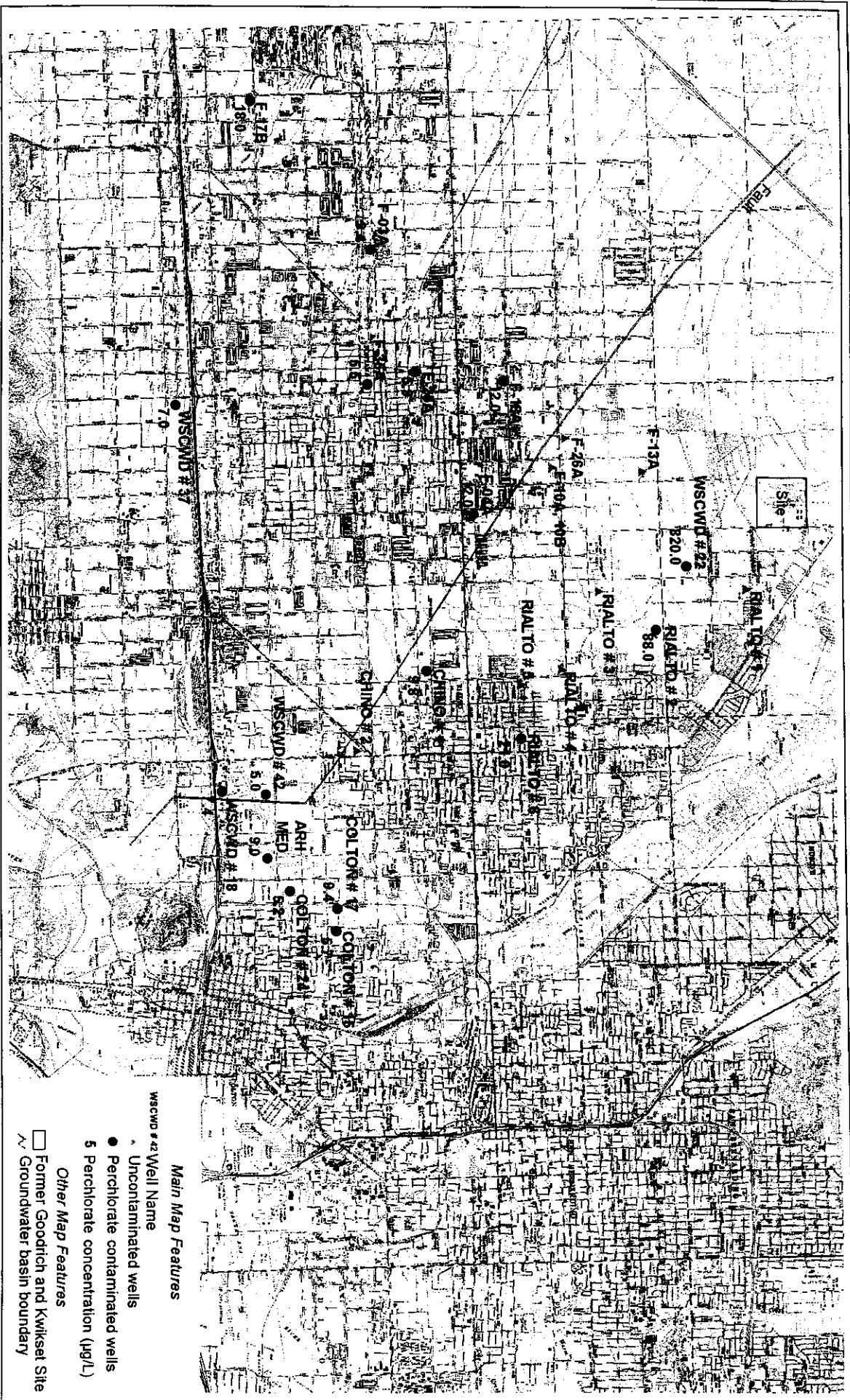


# **ATTACHMENT 2**

## **Well Location Map**



# WELL LOCATIONS AND PERCHLORATE CONCENTRATIONS



# **ATTACHMENT 3**

Summary by Mr. John Kase

## B.F. Goodrich in Rialto

The people transferred to Rialto in September, 1945 were originally employed at the B. F. Goodrich Research Center in Brecksville, Ohio, a small town midway between Cleveland and Akron, Ohio. The center's purpose was to support both the B. F. Goodrich Tire & Rubber Co. of Akron and the B.F. Goodrich Chemical Co. of Cleveland. These people had worked for several years on contracts with the U.S. Army Ordnance Division in research and development of solid rocket propellants. The company then decided to go into the manufacture of solid propellant rockets. Since Brecksville had become an upscale residential community, the limited amount of explosive material permitted at the Research Center handicapped any expansion in solid rocket activities, so B.F. Goodrich decided to look elsewhere.

During World War II, the U.S. Government developed an ammunition storage area in the wilderness north of Rialto. A number of bunkers designed to store ammunition were built there. This area was far enough inland to preclude shelling by off-shore Japanese warships. After the war, the West Coast Loading Company, a Division of Kwikset Locks built a plant at the site for the manufacture of pistol flares and parachute flares. The plant that they built consisted of over 70 scattered small buildings, most of which were constructed of corrugated sheet metal over a light wooden framework. This was because of the explosive materials involved. It precluded the accumulation of large amounts of explosives in one area, and if an explosion did occur, the damage from flying debris was minimized.

Later, Kwikset Locks decided that they did not wish to remain in the flare business, so they closed down the West Coast Loading Company and put the plant up for sale. There had been at least one fatality and some serious injuries during the plant's operating history.

This plant and its location appeared to be well suited, with minor modifications, to the manufacture of solid rockets so the B. F. Goodrich Company bought it and transferred the entire staff of 10 people on the Army Ordnance Research Project to the Rialto Plant. Since the U. S. Air Force was in the process of transferring its rocket activities from Wright-Patterson Air Force Base to the Edwards Air Force Base in California, this seemed to be a potential source of business for the Rialto B. F. Goodrich facility. The first contracts at the Rialto Plant were solid rocket propellant research and development programs with Edwards Air Force Base. Later there were contracts with the Naval Ordnance Test Station in China Lake, Calif. including work on the Sidewinder Missile. There were also contracts for atmospheric sounding rockets with a number of small companies in Southern California and Arizona. Employment grew to over 100 people. The management included Harold Catt, General Manager and Archie Japs, Technical Manager.

In around 1963, the growth of the business began to wane, with key contracts going to competitors. The company decide to close the plant in 1964. Most of the original 10 employees went back to Ohio to work in other B.F. Goodrich Divisions, many of which later left the company to explore new avenues.

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Anthony Araiza



# **ATTACHMENT 4**

Declaration of August 27, 2002 by Mr. John Kase

DECLARATION OF JOHN KASE

I, John Kase, declare as follows:

1. I am 76 years old and a retired former employee of the BF Goodrich Company. I reside in Irvine, California. I submit this Declaration in connection with the California Regional Water Quality Control Board hearing on Cleanup and Abatement Orders related to perchlorate contamination in the Rialto/Colton/Fontana area. I have no personal stake in the matters at issue and am not personally familiar with the issues to be decided. I give this declaration freely and willingly based on my own personal work history and memory of my time at the BF Goodrich Company Rialto, California facility. In July 2002, I had surgery on a portion of my back which precludes me from traveling.

2. I was employed by the BF Goodrich Company Research Center in Brecksville, Ohio in 1956. Effective September 1, 1957, I was transferred to Rocket Motor Development, Department 1814, Rialto, California and moved to California shortly thereafter. From September, 1957 until August 30, 1963, I was a Product Engineer at the BF Goodrich Aviation Products facility in Rialto working on developing capabilities of solid rocket propellants for sale to the U.S. Military as part of missiles, for example. As part of my job, I worked extensively with ammonium perchlorate as an oxidizer as well as other chemicals such as liquid synthetic rubber.

3. As part of my work over those approximately 6 years, I would prepare small batches of solid rocket propellant, consisting of ammonium perchlorate, liquid synthetic rubber and aluminum powder, and perform tests on the burn rate and other properties. For example, I would place the chemicals, including ammonium perchlorate, in a length of stainless steel pipe modeled after a potential product, and ignited it in a controlled atmosphere, i.e., tied down in a bunker, to determine the properties of the solid propellant as it burned. This included measuring burn rates, pressure and overall performance. Any surplus materials from these tests, i.e., unused batches or portions of batches of propellant which were not used, would be placed in a burn pit or a trench in the backyard of the laboratory of the BF Goodrich facility in Rialto and then burned. It is my understanding that the burn pits BF Goodrich used were essentially holes in the

1 ground with natural dirt bottoms. I would use a squib on the end of a wire to ignite the surplus  
2 material, flames would shoot in the air and the fire would die out on its own. During my entire  
3 time at BF Goodrich's Rialto facility, the burn pits were not covered or lined to my knowledge.

4 4. In addition to representatives of the Regional Board, I have previously been  
5 contacted by a representative of Goodrich, Mr. McBean. I provided him with information in or  
6 about March of this year. Attached hereto as Exhibit 1 is a true and correct copy of a  
7 Memorandum, business card and Federal Express bill I received from Mr. McBean.

8 I declare under the penalty of perjury under the laws of the State of California that  
9 the foregoing is true and correct and that this declaration was executed this 30 day of <sup>August</sup> ~~September~~,  
10 2002 at Irvine, California.

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13 JOHN KASE  
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## MEMORANDUM

TO: John Kase  
FROM: Ed McBean  
RE: Activities on the former Goodrich Property

REF. NO.:

DATE:

Mr. Kase:

Please let me first express my appreciation to you for making yourself available during our discussion on the 8th of March.

As followup, I have enclosed several items:

- (i) a photocopy of a picture that indicates the layout of land and buildings at the time of operation of the Goodrich facility;
- (ii) a photocopy of some topographic information that shows that Goodrich property. Note that the land records indicate that Goodrich owned two parcels of land, as I have indicated by the yellow shading. Is this your recollection?
- (iii) on the larger figure, we are uncertain regarding the lot lines but it appears that Goodrich had three bunkers on this southern piece of property. Specifically, Goodrich is reported to have leased two bunkers to Ordnance Associates for military storage beginning on November 1964. Do you recall whether Goodrich had three bunkers on this southern piece of property?

I would appreciate it if you could indicate on these diagrams,

- (i) the location of the burn pit, as best you can recall;
- (ii) indicate the types of activities that took place at the southern portion of the property.

For return of the documents, if you could call Fedex for pickup, CRA has a billing number which can pay the fedex charges. All you need do is quote CRA's fedex number of 0142-2070-4. I have included a copy of my business card and a mailing label that should be sufficient for fedex to send the information to me.

Again, many thanks for your assistance.

Sender's Fedex  
Account Number

John Kase

Phone 714-730-6305

ZIP/Postal Code

ATTAIN THIS COPY  
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6200 Irvine Blvd Spc 348

Dept./Floor

Address

Irvine

State/Province

CA

U.S.A

ZIP/Postal Code

92620

1 Year Internal Billing Reference Information

To (please print and press hard)

Conestoga Rovers

Phone

Company

651 Colby Dr.

Dept./Floor

Address

Ontario

State/Province

Waterloo

Canada

ZIP/Postal Code

N2V1C2

For Customs purposes  
For FedEx location check here

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Shipment Information

1 Packages

Weight

108

Yes

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Documents

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108

Documents

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